

## CLAIMS

### What is claimed is:

1. A method in a video production facility system for producing closed caption data for video programming events, comprising:

receiving script data for a video program;

determining identifiers of individual programming events within the program; and

producing closed caption data for the program, the closed caption data comprising text data corresponding to said script data, and timing data provided at locations corresponding to beginnings of each of the programming events, the timing data corresponding to a programming event comprising an identifier of the corresponding programming event.

2. The method claimed in claim 1, wherein said closed caption data further comprises timing data provided at locations corresponding to ends of each programming event.

3. The method claimed in claim 1, wherein said closed caption data further comprises timing data provided at locations corresponding to beginnings of segments within the programming events.

4. The method claimed in claim 1, wherein said closed caption data further comprises timing data provided at locations corresponding to ends of segments within the programming events.

5. The method claimed in claim 1, further comprising providing synchronized transmission of the closed caption data and programming events .

6. The method claimed in claim 5, wherein providing synchronized transmission comprises synchronizing transmission of the closed caption data to the display of corresponding text by a teleprompter system used in the production of the video program.

7. The method claimed in claim 1, further comprising storing the programming events and the closed caption data on a machine readable storage medium.

8. The method claimed in claim 1, wherein the timing data for a programming event comprises an identifier associated with the programming event and data indicating an amount of time by which the identifier precedes the beginning of the programming event.

9. The method claimed in claim 1, wherein the timing data for a programming event comprises an identifier associated with the programming event that is inserted into the closed caption data at a location separated from the beginning of the programming event by a predetermined amount of time.

10. The method claimed in claim 1, wherein the timing data is encoded as hidden closed caption data.

11. The method claimed in claim 1, wherein said timing data is accompanied by a timing data marker.

12. The method claimed in claim 1, wherein said timing data is encrypted.

13. A device for providing closed caption data for video programming events, comprising:  
at least one processor; and

memory coupled to the at least one processor and having stored therein programming instructions to perform data processing, comprising:

- receiving script data for a video program;
- determining identifiers of individual programming events within the program; and
- producing closed caption data for the program, the closed caption data comprising text data corresponding to said script data, and timing data provided at locations corresponding to beginnings of each of the programming events, the timing data corresponding to a programming event comprising an identifier of the corresponding programming event.

14. The device claimed in claim 13, wherein said closed caption data further comprises timing data provided at locations corresponding to ends of each programming event.

15. The device claimed in claim 13, wherein said closed caption data further comprises timing data provided at locations corresponding to beginnings of segments within the programming events.

16. The device claimed in claim 13, wherein said closed caption data further comprises timing data provided at locations corresponding to ends of segments within the programming events.

17. The device claimed in claim 13, further comprising providing synchronized transmission of the closed caption data and programming events .

18. The device claimed in claim 17, wherein providing synchronized transmission comprises synchronizing transmission of the closed caption data to the display of corresponding text by a teleprompter system used in the production of the video program.

19. The device claimed in claim 13, further comprising storing the programming events and the closed caption data on a machine readable storage medium.

20. The device claimed in claim 13, wherein the timing data for a programming event comprises an identifier associated with the programming event and data indicating an amount of time by which the identifier precedes the beginning of the programming event.

21. The device claimed in claim 13, wherein the timing data for a programming event comprises an identifier associated with the programming event that is inserted into the closed caption data at a location separated from the beginning of the programming event by a predetermined amount of time.

22. The device claimed in claim 13, wherein the timing data is encoded as hidden closed caption data.

23. The device claimed in claim 13, wherein said timing data is accompanied by a timing data marker.

24. The device claimed in claim 13, wherein said timing data is encrypted.

25. A method of generating closed caption data for a video program, comprising:

producing closed caption data comprising timing data and text data corresponding to at least an audio portion of the video program, the timing data comprising beginning timing data provided at locations in the closed caption data corresponding to beginnings of programming events within the video program;

producing a video signal for the video program; and

synchronizing the closed caption data to the video signal in accordance with display of corresponding text by a teleprompter system used in the production of the video program.

26. The method claimed in claim 25, the timing data further comprising end timing data provided at locations corresponding to ends of programming events.

27. The method claimed in claim 25, the timing data further comprising segment beginning timing data provided at locations corresponding to beginnings of segments within the programming events.

28. The method claimed in claim 25, the timing data further comprising segment end timing data provided at locations corresponding to ends of segments within the programming events.

29. The method claimed in claim 25, further comprising transmitting the synchronized video signal and closed caption data to client video reception devices.

30. The method claimed in claim 25, further comprising storing the synchronized video signal and closed caption data on a machine readable storage medium.

31. The method claimed in claim 25, wherein the timing data comprises an identifier associated with a programming event of the television program.

32. The method claimed in claim 25, wherein the timing data comprises an identifier associated with a programming event of the television program and data indicating an amount of time by which the identifier precedes the beginning of the programming event.

33. The method claimed in claim 25, wherein the timing data comprises an identifier associated with a programming event of the television program that is inserted into the closed caption data at a location separated from the beginning of a programming event by a predetermined amount of time.

34. The method claimed in claim 25, wherein the timing data is encoded as hidden data.

35. The method claimed in claim 25, wherein the live television program is a news program.

36. The method claimed in claim 25, wherein the live television program is a home shopping program.

37. The method claimed in claim 25, wherein said timing data is accompanied by a timing data marker.

38. The method claimed in claim 25, wherein said timing data is encrypted.

39. A system for providing closed caption data for a video program, comprising:

a video signal source providing a video signal of the program;

a closed caption data source providing closed caption data including text data for the video program and timing data for programming events within the video program, the timing data comprising beginning timing data provided at locations in the closed caption data corresponding to beginnings of programming events within the video program; and

a teleprompter system for displaying text to be read during production of the video program,

the closed caption data being synchronized to the video signal in accordance with display of corresponding text by the teleprompter system.

40. The device claimed in claim 39, the timing data further comprising end timing data provided at locations corresponding to ends of programming events.

41. The device claimed in claim 39, the timing data further comprising segment beginning timing data provided at locations corresponding to beginnings of segments within the programming events.

42. The device claimed in claim 39, the timing data further comprising segment end timing data provided at locations corresponding to ends of segments within the programming events.

43. The system claimed in claim 39, further comprising a storage device for storing the video signal and the synchronized closed caption data on a machine readable storage medium.

44. The system claimed in claim 39, further comprising a transmitter for providing the video signal and the synchronized closed caption data to a transmission medium.

45. The device claimed in claim 39, wherein said timing data is accompanied by a timing data marker.

46. The device claimed in claim 39, wherein said timing data is encrypted.

47. A machine readable storage medium storing signals representing a video program, the signals comprising:

a video signal representing a video portion of the video program; and  
closed caption data comprising text data corresponding to at least an audio portion of the video program, and timing data comprising identifiers of programming events used in metadata describing the programming events, the locations of the timing data in the closed caption data corresponding to beginnings of corresponding programming events within the video program.

48. The storage medium claimed in claim 47, wherein said timing data is accompanied by timing data markers.

49. The storage medium claimed in claim 47, wherein said timing data is encrypted.



50. A method in a video production facility system for producing a video, comprising:

determining programming events within a video program;  
determining identifiers of the programming events; and  
producing a video signal for the program, the video signal comprising timing data provided at locations corresponding to beginnings of each of the programming events, the timing data corresponding to a programming event comprising an identifier of the corresponding programming event.

51. The method claimed in claim 50, wherein said video signal further comprises timing data provided at locations corresponding to ends of each programming event.

52. The method claimed in claim 50, wherein said video signal further comprises timing data provided at locations corresponding to beginnings of segments within the programming events.

53. The method claimed in claim 50, wherein said video signal further comprises timing data provided at locations corresponding to ends of segments within the programming events.

54. The method claimed in claim 50, wherein said timing data is provided in vertical blanking intervals of the video signal.

55. The method claimed in claim 50, wherein said timing data is provided in data fields of a digital video signal.

56. The method claimed in claim 50, further comprising storing the video signal including the timing data on a machine readable storage medium.

57. The method claimed in claim 50, wherein the timing data for a programming event comprises an identifier associated with the programming

event and data indicating an amount of time by which the identifier precedes the beginning of the programming event.

58. The method claimed in claim 50, wherein the timing data for a programming event comprises an identifier associated with the programming event that is inserted into the video signal at a location separated from the beginning of the programming event by a predetermined amount of time.

59. The method claimed in claim 50, wherein said timing data is accompanied by a timing data marker.

60. The method claimed in claim 50, wherein said timing data is encrypted.

61. A device for providing closed caption data for video programming events, comprising:

at least one processor; and

memory coupled to the at least one processor and having stored therein programming instructions to perform data processing, comprising:

determining programming events within a video program;

determining identifiers of the programming events; and

producing a video signal for the program, the video signal comprising timing data provided at locations corresponding to beginnings of each of the programming events, the timing data corresponding to a programming event comprising an identifier of the corresponding programming event.

62. The device claimed in claim 61, wherein said video signal further comprises timing data provided at locations corresponding to ends of each programming event.

63. The device claimed in claim 61, wherein said video signal further comprises timing data provided at locations corresponding to beginnings of segments within the programming events.

64. The device claimed in claim 61, wherein said video signal further comprises timing data provided at locations corresponding to ends of segments within the programming events.

65. The device claimed in claim 61, wherein said timing data is provided in vertical blanking intervals of the video signal.

66. The device claimed in claim 61, wherein said timing data is provided in data fields of a digital video signal.

67. The device claimed in claim 61, further comprising storing the video signal including the timing data on a machine readable storage medium.

68. The device claimed in claim 61, wherein the timing data for a programming event comprises an identifier associated with the programming event and data indicating an amount of time by which the identifier precedes the beginning of the programming event.

69. The device claimed in claim 61, wherein the timing data for a programming event comprises an identifier associated with the programming event that is inserted into the video signal at a location separated from the beginning of the programming event by a predetermined amount of time.

70. The device claimed in claim 61, wherein said timing data is accompanied by a timing data marker.

71. The device claimed in claim 61, wherein said timing data is encrypted.